

**In the Specification:**

Please amend the specification as shown:

Please delete the paragraph on page 3, line 16, to page 4, line 2, and replace it with the following paragraph:

An aspect of the invention is a microarray with oligonucleotide probes that bind to the target sequences designated: **(SEQ ID NOS 46-69 respectively in order of appearance)**

<i>Target Name</i>	<i>5' to 3' Target Sequence</i>
c-ps1	GAGCGAATGGATTAAGAGCT
c-ps2	GAGCGAATGGATTgAGAGCT
c-ps3	AGCTTGCTCTTATGAAGTTA
c-ps4	AGCTTGCTCTcAaGAAGTTA
c-ps5	TGCTCTTATGAAGTTAGCGG
c-ps6	TGCTCTcAaGAAGTTAGCGG
c-ps7	CATTTTGAACCGCATGGTTC
c-ps8	CATTTTGAACtGCATGGTTC
c-ps9	CATTTTGAACCGCATGGTTC
c-ps10	CATTTTGcACCGCATGGTgC
c-ps11	AACCGCATGGTTCGAAATTG
c-ps12	cACCGCATGGTgCGAAATTe
c-ps13	ATGGTTCGAAATTGAAAGGC
c-ps14	ATGGTgCGAAATTcAAAGGC
c-ps15	GAAATTGAAAGGCGGCTTCG
c-ps16	GAAATTcAAAGGCGGCTTCG
c-ps17	CATCCTCTGACAACCCTAGA
c-ps18	CATCCTCTGAaAACCCTAGA
c-ps19	GCTTCTCCTTCGGGAGCAGA
c-ps20	GCTTCcCCTTCGGGgGCAGA
c-ps21	TTATCGTGAAGGCTGAGCTG
c-ps22	TTATCGTaAAGGCTGAGCTG
c-ps23	TGATACC-AATGGTATCAGTG
c-ps24	TGATACCgAATGGTATCAGTG

Please delete the paragraph on page 4, lines 4-33, and replace it with the following paragraph:  
This invention also includes a microarray with oligonucleotide probes, whose sequences are designated: **(SEQ ID NOS 70-95 respectively in order of appearance)**

<i>Oligonucleotide Name</i>	<i>5' to 3' Sequence</i>
ps1	AGC TCT TAA TCC ATT CGC TC
ps2	AGC TCT cAA TCC ATT CGC TC
ps3	TAA CTT CAT AAG AGC AAG CT

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ps4	TAA CTT C <b>t</b> T <b>g</b> AG AGC AAG CT
ps5	CCG CTA ACT TCA TAA GAG CA
ps6	CCG CTA ACT TC <b>t</b> T <b>g</b> A GAG CA
ps7	GAA CCA TGC <b>G</b> GT TCA AAA TG
ps8	GAA CCA TGC <b>a</b> GT TCA AAA TG
ps9	GAA CCA TGC GGT <b>T</b> CA AAA TG
ps10	<b>G</b> cA CCA TGC GGT <b>g</b> CA AAA TG
ps11	<b>C</b> AA TTT CG <b>A</b> ACC ATG CGG <b>T</b> T
ps12	<b>g</b> AA TTT CG <b>c</b> ACC ATG CGG T <b>g</b>
ps13	GCC TTT <b>C</b> AA TTT CG <b>A</b> ACC AT
ps14	GCC TTT <b>g</b> AA TTT CG <b>c</b> ACC AT
ps15	CGA AGC CGC CTT TCA ATT TC
ps16	CGA AGC CGC CTT T <b>g</b> A ATT TC
ps17	TCT AGG GTT <b>G</b> TC AGA GGA TG
ps18	TCT AGG GTT <b>t</b> TC AGA GGA TG
ps19	TCT GCT CCC GAA GGA GAA GC
ps20	TCT GC <b>c</b> CCC GAA GG <b>g</b> GAA GC
ps21	CAG CTC AGC CTT <b>C</b> AC GAT AA
ps22	CAG CTC AGC CTT <b>t</b> AC GAT AA
ps23	CAC TGA TAC CAT TG GTA TCA
ps24	CAC TGA TAC CAT T <b>c</b> G GTA TCA
ps25	CGGTCTTG <b>C</b> AGCTCTTTGTA
ps26	ATTCCAGCTTCACGCAGTC

Please delete the paragraph on page 7, lines 3-12, and replace it with the following paragraph:

FIG. 1 illustrates the positions of subgroup-specific sequence differences in the 16S rRNA gene of *B. cereus* subgroups (A) **(SEQ ID NOS 1-21)** and reference microorganisms used for microchip testing (B) **(SEQ ID NOS 22-45)**. The sequence of *B. anthracis* Ames ANR was used as the consensus sequence. Sequences c-ps1 through c-ps20 which are complementary to the probes ps1 through ps20 on a microchip (see page 3-5, 52-53) and their locations on the 16S rRNA are also shown (bold letters denote target nucleotides). The names of the target sequences (example, c-ps1) are shown to the left of each of the sequences and the corresponding probe sequences (example, SB1) are shown to the right of the sequences. The probe sequences (ps1-ps20) for the target sequences are listed in Table 5.

Please delete the paragraph on page 7, lines 13-19, and replace it with the following paragraph:

FIG. 2 illustrates the positions of subgroup-specific sequence differences in the 23S rRNA. The sequence of *B. anthracis Ames ANR* was used as the consensus sequence. Arrows indicate regions containing subgroup-specific signatures. Target sequences (c-ps21 through c-ps24) complementary to the probes (ps21 through ps24) (**SEQ ID NOS 66-69**) and their locations on the 23S rRNA are also shown (bold letters denote target nucleotides). The corresponding probes sequences (example, ps21) are listed in Table 5. R =G, or A; Y = T, or C.

Please delete the paragraph on page 8, lines 15-21, and replace it with the following paragraph:

FIG. 7 illustrates the identification of microbial groups using a 16S rRNA oligonucleotide microchip. A microchip containing oligonucleotides ps25 and ps26 targeting the *B. cereus* group (5'-CGGTCTTGCAGCTCTTTGTA-3') (**SEQ ID NO: 94**) and the *B. subtilis* group (5'-ATTCCAGCTTCACGCAGTC-3') (**SEQ ID NO: 95**), respectively is shown. Microchips were hybridized with fluorescently labeled total RNA of the corresponding microorganisms. Ratios of integrated fluorescent signals are shown in the far right column.

Please delete the paragraph on page 34, lines 4-36, and replace it with the following paragraph:

**Table 1. Primers used for PCR and for sequencing of 16S and 23S rRNA genes of *B. cereus* groups bacteria <sup>(a)</sup>. (SEQ ID NOS 96-125 respectively in order of appearance)**

Name	Sequence	Location
P1	5' - GTT TGA TCC TGG CTC AG	11 - 27 (16S rRNA)
P10	5' - CCA GTC TTA TGG GCA GGT TAC	136 - 116 (16S rRNA)
P11	5' - TCC ATA AGT GAC AGC CGA AGC	226 - 206 (16S rRNA)
P5	5' - CTA CGG GAG GCA GCA GTG GG	340 - 360 (16S rRNA)
P3	5' - GWA TTA CCG CGG CKG CTG	535 - 517 (16S rRNA)
P2	5' - GGA TTA GAT ACC CTG GTA GT	784 - 803 (16S rRNA)
P6	5' - CCG TCA ATT CCT TTR AGT TT	926 - 907 (16S rRNA)
P8	5' - TTC GGG AGC AGA GTG ACA GGT	1029 - 1049 (16S rRNA)
P9	5' - TAC ACA CCG CCC GTC ACA CCA	1392 - 1412 (16S rRNA)
P4	5' - RGT GAG CTR TTA CGC	1513 - 1492 (16S rRNA)
Pr1	5' - CCG AAT GGG GVA ACC C	114 - 129 (23S rRNA)
Pr13	5' - CCG TTT CGC TCG CCG CTA CTC	262 - 242 (23S rRNA)
PB1	5' - TAG TGA TCG ATA GTG AAC CAG	485 - 505 (23S rRNA)

Pr2	5' - CAT TMT ACA AAA GGY ACG C	621 - 603 (23S rRNA)
Pr3	5' - GCG TRC CTT TTG TAK AAT G	603 - 621 (23S rRNA)
PB2	5' - TAG TGA TCG ATA GTG AAC CAG	755 - 736 (23S rRNA)
PB3	5' - TAG TGA TCG ATA GTG AAC CAG	969 - 990 (23S rRNA)
Pr4	5' - RGT GAG CTR TTA CGC	1151 - 1137 (23S rRNA)
Pr5	5' - WGC GTA AYA GCT CAC	1136 - 1150 (23S rRNA)
PB4	5' - CAT ACC GGC ATT CTC ACT TC	1308 - 1289 (23S rRNA)
PB5	5' - ACA GGC GTA GGC GAT GGA C	1408 - 1426 (23S rRNA)
PB8	5' - AAC CTT TGG GCG CCT CC	1679 - 1661 (23S rRNA)
Pr6	5' - CYA CCT GTG WCG GTT T	1673 - 1659 (23S rRNA)
Pr7	5' - AAA CCG WCA CAG GTR G	1659 - 1673 (23S rRNA)
Pr8	5' - CAY GGG GTC TTT RCG TC	2092 - 2076 (23S rRNA)
Pr9	5' - GAC GYA AAG ACC CCR TG	2076 - 2092 (23S rRNA)
Pr10	5' - GAG YCG ACA TCG AGG	2535 - 2521 (23S rRNA)
Pr11	5' - CCT CGA TGT CGR CTC	2521 - 2535 (23S rRNA)
Pr12	5' - GYT TAG ATG CYT TC	2783 - 2770 (23S rRNA)
R1	5' - GGC GGC GTC CTA CTC TCA C	112 - 95 (5S rRNA)

Please insert the following paragraph above Table 5:

**(SEQ ID NOS 126-141, 84, 85, 82, 83, 142-145, 87, 86, 146-161, 92, 93, 162-163, 90, 91, 164, 77, 72-75, 70, 71, 165, 166, 156, 157, 167-173, 94, 174, 95, 79, 80, 81, 88, 89 and 175, respectively in order of appearance)**